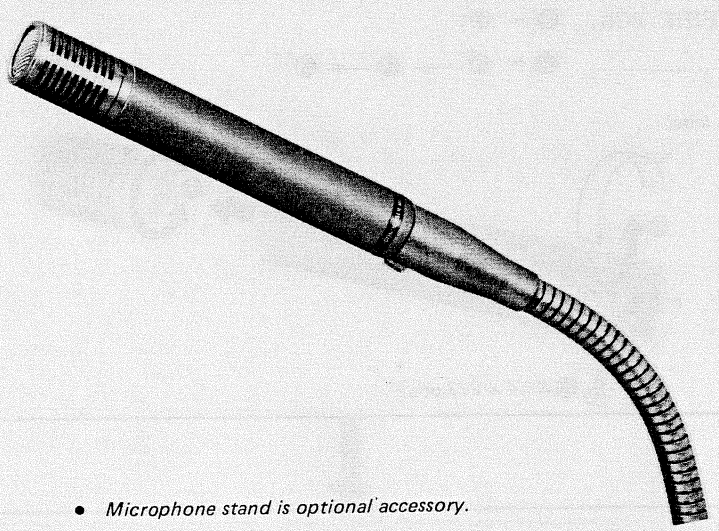
# C-35P



• *Microphone stand is optional accessory.*

# CONDENSER MICROPHONE

## SPECIFICATIONS

### GENERAL

**Type:** Condenser microphone

**Semiconductors:** 1 Sony junction FET
2 transistors

**Power Supply:** External power supply

**Microphone Output Connector:** Cannon XLR-3-12C

**Dimensions:** $\phi$21 x 135 mm (outside diameter x length) ($\frac{27}{32}$ x $5\frac{3}{8}$)

**Weight:** Approx. 360 g (12.7 oz)

**Finish:** Satin color coating finish

### PERFORMANCE

**Frequency Response:** 30 Hz – 16,000 Hz

**Directivity:** Uni-directional

**Output Impedance:** 100 Ω ± 20 %, balanced

**Output Level:** (deviation ± 2dB)
Open circuit voltage *1 –61.0 dB (0.89 mV)
Effective output level *2 –37.0 dBm
*1 0 dB = 1V/1$\mu$ bar, 1,000 Hz
*2 0 dBm = 1mW/10$\mu$ bar, 1,000 Hz
Recommended load impedance is more than 3 kΩ

**Power Requirements:**
Normal operating voltage: 48 V dc
Minimum operating voltage: Approx. 42 V dc
Current drain: Less than 2 mA

**Noise Level:**
Signal-to-noise ratio: More than 52 dB (1,000 Hz, 1$\mu$ bar)
Inherent noise: Less than 22 dB SPL
Wind noise *1: Less than 70 dB SPL
Induction noise from external magnetic field *2: Less than 5 dB SPL

*1 Wind noise is the value measured by applying a wind velocity of 2 m/sec. (6.6 ft/sec.) from all directions to the microphone. The mean value is taken and converted to the equivalent input sound level.
0 dB = 2 x $10^{-4}$ $\mu$bar

*2 The external magnetic field induction noise is measured with the microphone placed in an alternating magnetic field of 50 Hz, 1 milligauss. The maximum noise value is taken and converted to the equivalent input sound level.
0 dB = 2 x $10^{-4}$ $\mu$bar

**Maximum Sound Pressure Input Level:** More than 138 dB SPL (at 1,000 Hz, 1 % distortion, 0 dB = 2 x $10^{-4}$ $\mu$bar)

**Dynamic Range:** More than 116 dB

**Environmental Temperatures:** –20°C to +60°C (–4°F to +140°F) for storage 0° to +60°C (+32°F to +140°F) for operation

MICROFILM

SONY®
SERVICE MANUAL

## 1. DISASSEMBLY

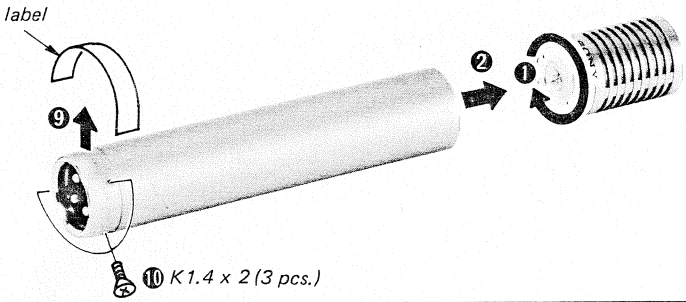
Note: Follow the disassembly procedure in the numerical order given.

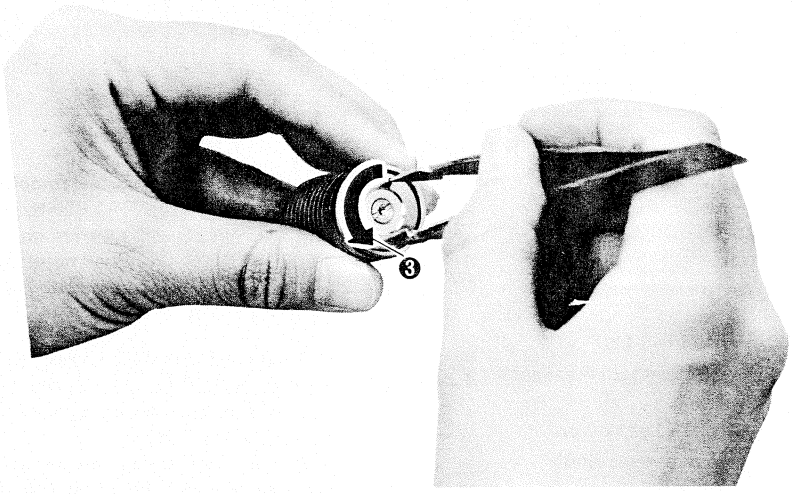
**MICROPHONE UNIT/COMPLETE AMPLIFIER PCB/CANNON PIN REMOVAL**

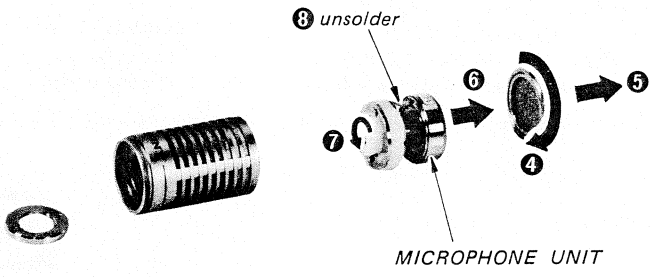
MICROPHONE UNIT ..... ❶ ~ ❽

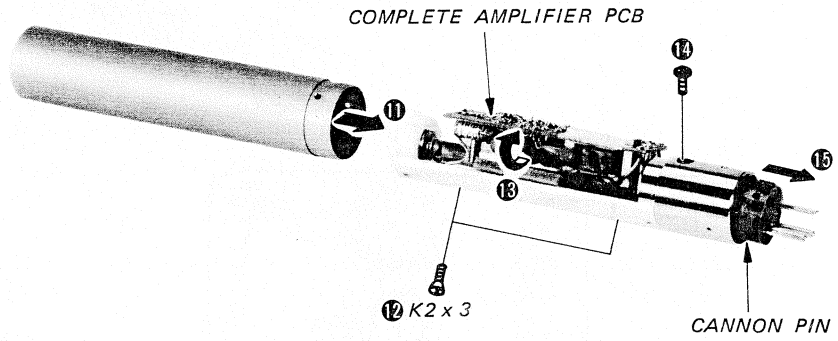
COMPLETE AMPLIFIER PCB.. ❾ ~ ⓭

CANNON PIN ..... ❾ ~ ⓫ → ⓮ → ⓯

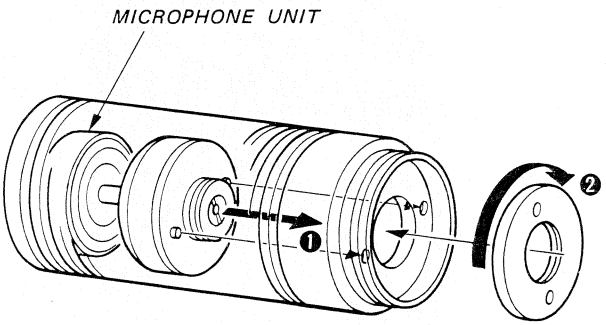


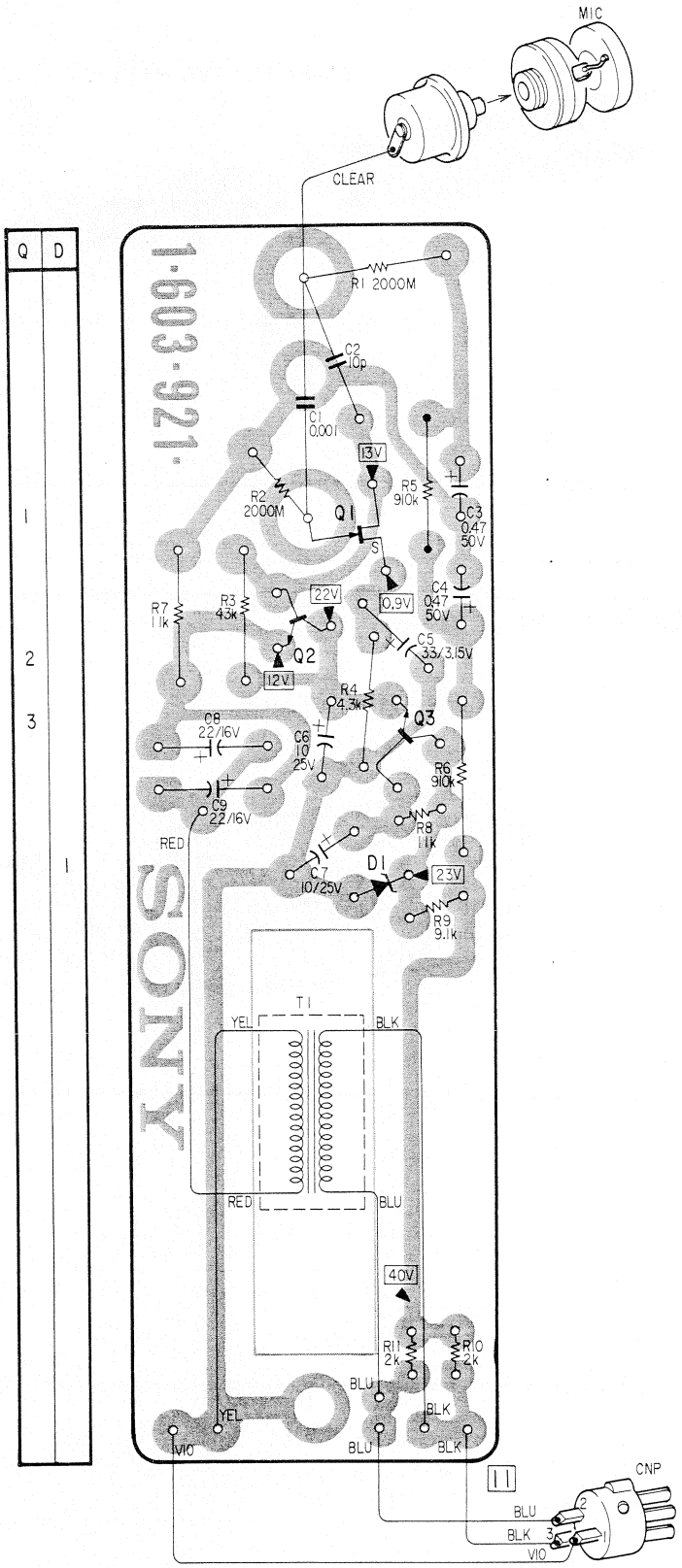



MICROPHONE UNIT INSTALLATION



## 2. MOUNTING DIAGRAM

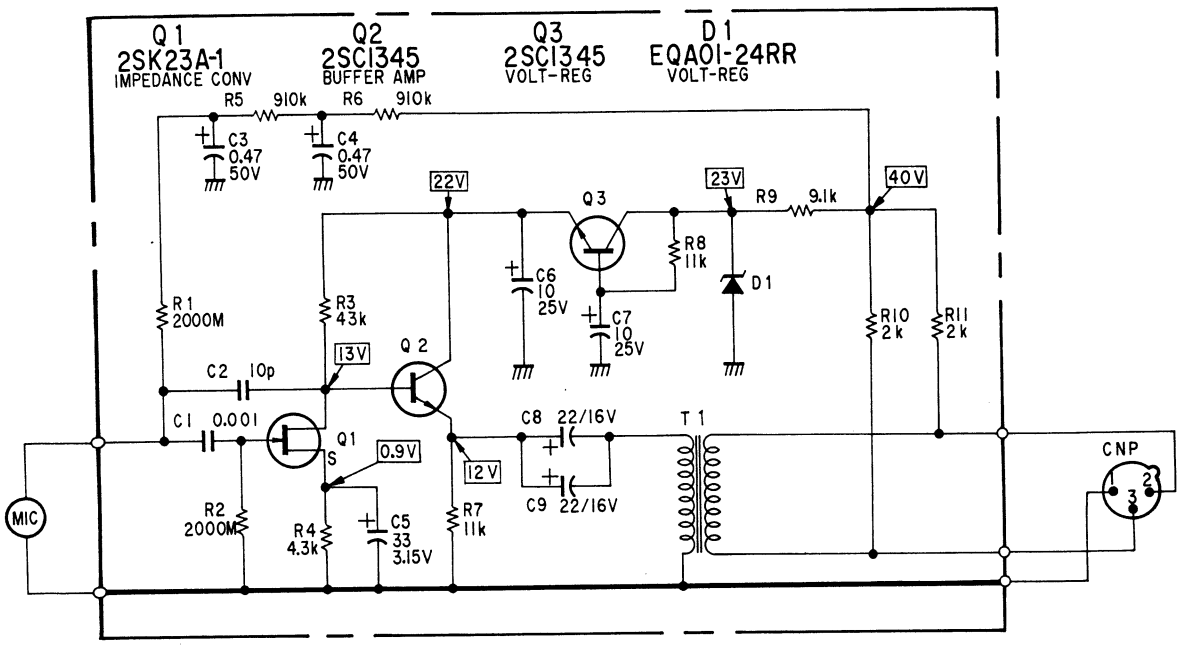
*— Conductor Side —*




Note:

- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.

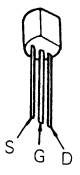
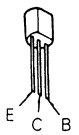
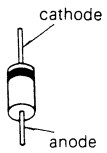
## 3. SCHEMATIC DIAGRAM



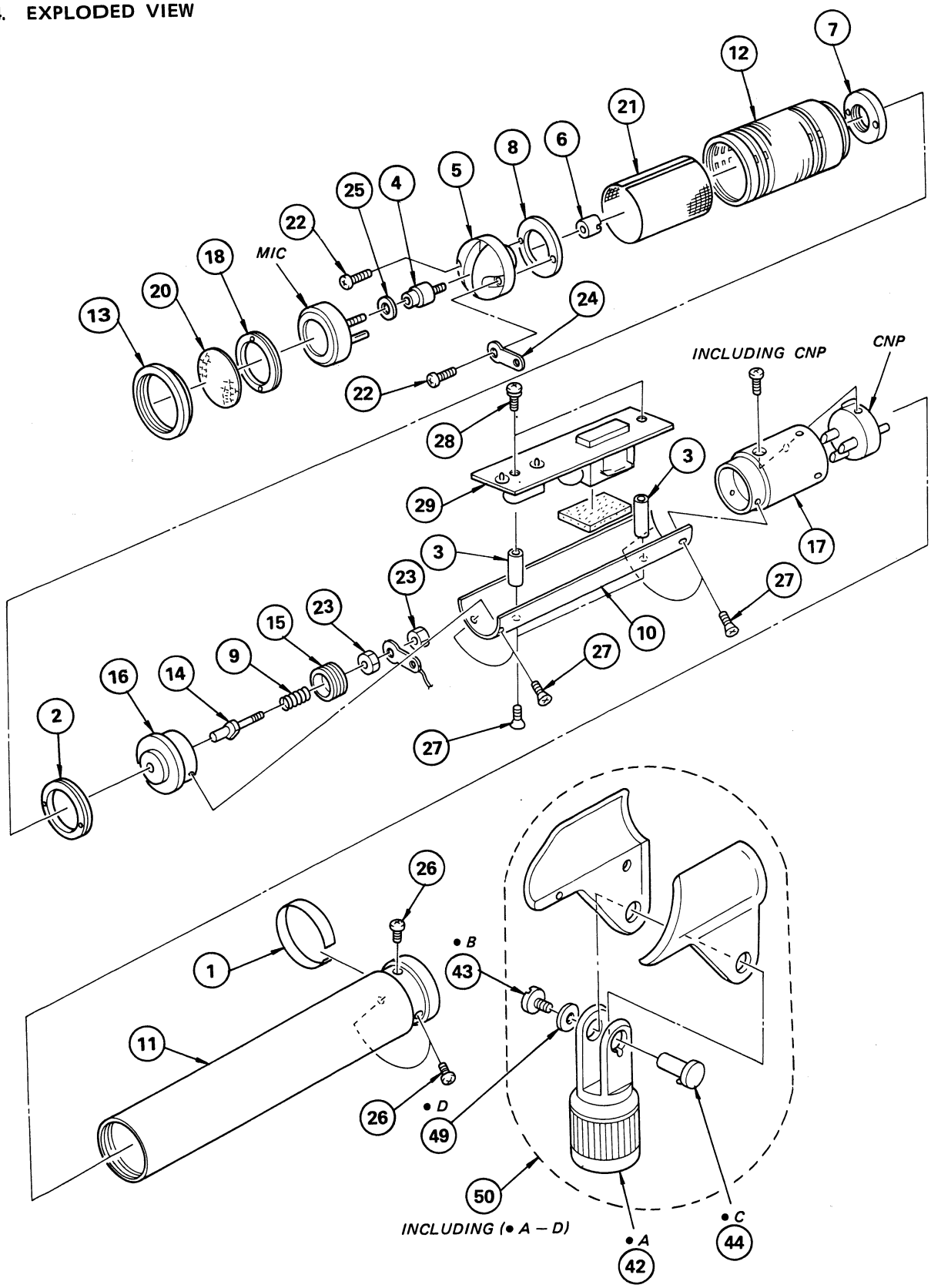

**Note:**

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/8W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (20kΩ/V).
- Do not touch the VOM lead with the contact case during the voltage measurement. If not, incorrect voltage will be indicated.

### Semiconductor Lead Layouts

| 2SK107-1 | 2SC1345 | EQB01-24 |
|---|---|---|
|  |  |  |

## 4. EXPLODED VIEW



## GENERAL SECTION

| No. | Part No. | Description |
|---|---|---|
| 1 | ♦;2-531-001-00 | LABEL, MODEL NUMBER |
| 2 | ♦;2-531-002-00 | RING, CASE RETAINER |
| 3 | ♦;2-531-003-00 | SUPPORT, PC BOARD |
| 4 | ♦;2-531-004-00 | JOINT |
| 5 | ♦;2-531-005-00 | BASE, MOUNT |
| 6 | ♦;2-531-006-00 | CHIP, CONTACT |
| 7 | ♦;2-531-007-00 | RING (2), LOCK |
| 8 | ♦;2-531-008-00 | RING, GROUNG |
| 9 | ♦;2-531-009-00 | SPRING, COMPRESSION |
| 10 | ♦;2-531-010-00 | CHASSIS, AMPLIFIER |
| 11 | ♦;2-531-011-00 | GRIP |
| 12 | ♦;2-531-012-00 | CASE |
| 13 | ♦;2-531-013-00 | CAP, TOP |
| 14 | ♦;2-531-014-00 | PIN, CONTACT |
| 15 | ♦;2-531-015-00 | CASE (2), CONTACT |
| 16 | ♦;2-531-016-00 | CASE (1), CONTACT |
| 17 | ♦;2-531-017-00 | SLEEVE, CONNECTOR |
| 18 | ♦;2-531-018-00 | RETAINER, SCREEN |
| 19 | ♦;2-531-019-00 | DAMPER, URETHANE |
| 20 | ♦;2-531-020-00 | SCREEN, TOP |
| 21 | ♦;2-531-021-00 | SCREEN, SIDE |
| 22 | 7-621-255-32 | SCREW +P 2X5 |
| 23 | 7-622-205-05 | N 2, TYPE 2 |
| 24 | 7-623-505-01 | LUG, 2 |
| 25 | 7-623-920-11 | WASHER 1.4, NYLONE |
| 26 | 7-627-451-37 | SCREW,PRECISION +K 1.4X2 |
| 27 | 7-627-452-17 | SCREW,PRECISION +K 2X3 |
| 28 | 7-628-253-15 | SCREW +PS 2X5 |
| 29 | ♦;A-4518-130-A | COMPLETE PCB, AMPLIFIER |

## ACCESSORY & PACKING MATERIAL

| No. | Part No. | Description |
|---|---|---|
| 41 | 2-052-522-02 | ADAPTOR, 1/2-5/8 SCREW |
| 42 | 2-509-711-00 | POLE, ARM |
| 43 | 2-509-712-01 | SCREW |
| 44 | 2-509-713-01 | RETAINER |
| 45 | ♦;2-531-026-00 | INDIVIDUAL CARTON |
| 46 | 2-531-027-00 | CASE, CARRYING |
| 47 | 2-531-028-00 | SCREEN, WINDOW |
| 48 | 2-599-171-11 | MANUAL, INSTRUCTION |
| 49 | 3-420-075-11 | WASHER, NYLON THRUST |
| 50 | A-4581-001-A | HOLDER ASSY, MIC |

## ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| | 1-535-240-00 | TARMINAL, HERMETIC |
| C5 | 1-131-184-00 | TANTALUM 33MF 10% 3.15V |
| CNP | 1-509-096-00 | CANNON XLR3-14 PIN INSERT |
| D1 | 8-719-931-24 | DIODE EQB01-24 |
| MIC | 8-814-175-00 | CAPSULE (CU19-01) |
| Q1 | 8-769-200-10 | TRANSISTOR 2SK107-1 |
| Q2 | 8-729-334-58 | TRANSISTOR 2SC1345 |
| Q3 | 8-729-334-58 | TRANSISTOR 2SC1345 |
| T1 | ♦;1-427-501-00 | TRANSFORMER, INPUT (MIC) |

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.
- F : nonflammable

COILS
- MMH : mH, UH : μH